NLM’s Online Playground: K-12 Health & Science Information Resources for Teachers & Students

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Who We Are

NIH
- National Institutes of Health
- Nation’s research agency
- 27 institutes and offices

NLM
- National Library of Medicine
- World’s largest biomedical library

NNLM
- National Network of Libraries of Medicine
- Program of the NLM comprised of 8 Regional Libraries (RMLs) and 5 offices

PNR
- Pacific Northwest Region (NNLM PNR)
- Is one of the 8 RMLs
- Serves Alaska, Idaho, Montana, Oregon, Washington
The mission of NNLM is to advance the progress of medicine and improve the public health by:

- Providing all U.S. health professionals with equal access to biomedical information
- Improving the public’s access to information to enable them to make informed decisions about their health

NNLM
https://nnlm.gov/
NLM K-12 Resources
Medicine/Health
- Links to reliable, authoritative health websites
- Health Topics on children/teens
- Easy-to-read articles
- Medical dictionary
- Medical encyclopedia
- Links to local services
- English, Spanish and other languages
- No Advertisements!

MedlinePlus
https://medlineplus.gov/
MedlinePlus Health Topics

Health Topics
Read about symptoms, causes, treatment and prevention for over 1000 diseases, illnesses, health conditions and wellness issues. MedlinePlus health topics are regularly reviewed, and links are updated daily.

Find topics A-Z

Body Location/Systems
- Blood, Heart and Circulation
- Bones, Joints and Muscles
- Brain and Nerves
- Digestive System
- Ear, Nose and Throat
- Endocrine System
- Eyes and Vision
- Immune System
- kidneys and Urinary System
- Lungs and Breathing
- Mouth and Teeth
- Skin, Hair and Nails
- Female Reproductive System
- Male Reproductive System

Disorders and Conditions
- Cancers
- Diabetes Mellitus
- Genetics/Birth Defects
- Infections
- Injuries and Wounds
- Mental Health and Behavior
- Metabolic Problems
- Poisoning, Toxicology, Environmental Health
- Pregnancy and Reproduction
- Substance Abuse Problems

Diagnosis and Therapy
- Complementary and Alternative Therapies
- Diagnostic Tests
- Drug Therapy
- Surgery and Rehabilitation
- Symptoms
- Transplantation and Donation

Demographic Groups
- Children and Teenagers
- Men
- Population Groups
- Seniors
- Women

Health and Wellness
- Disasters
- Fitness and Exercise
- Food and Nutrition
- Health System
- Personal Health Issues
- Safety Issues
- Sexual Health Issues
- Social/Family Issues
- Wellness and Lifestyle
You can help prevent infections by taking your HIV/AIDS medicines. Other things that can help include practicing safe sex, washing your hands well and often, and cooking your food well.

Start Here

- Opportunistic Infections (Centers for Disease Control and Prevention)
- Opportunistic infections (AIDS.gov)

Prevention and Risk Factors

- Food Safety for People with HIV/AIDS (Food and Drug Administration)
- HIV and Immunizations (AIDSinfo)
- Also in Spanish
- Preventing Opportunistic Infections in HIV (Beyond the Basics)
- HIV and Prevention (Centers for Disease Control and Prevention)
- Sex and Prevention Concerns for Positive People (Project Inform)

Treatments and Therapies

- Also in Spanish

Related Topics

- Neurological Complications of AIDS (National Institute of Neurological Disorders and Stroke)
- Also in Spanish

Statistics and Research

- HIV-Associated TB: Facts 2013 (World Health Organization) - PDF

Clinical Trials

- ClinicalTrials.gov: AIDS-Related Opportunistic Infections (National Institutes of Health)

Journal Articles

- Article: A qualitative evaluation of an implementation study for cryptococcal antigen...
- Article: Rapid urine-based screening for tuberculosis in HIV-positive patients admitted to...
- Article: Cryptococcus neoformans Meningoencephalitis...
- HIV/AIDS and infections -- see more articles

Reference Desk

- AIDSinfo Glossary (AIDSinfo)
- Also in Spanish

Find an Expert

- AIDS.gov
- AIDSinfo (Department of Health and Human Services)
- Also in Spanish
- Centers for Disease Control and Prevention
- Also in Spanish
- NIAID Division of AIDS (National Institute of Allergy and Infectious Diseases)

Patient Handouts

- Cryptococcosis (Medical Encyclopedia)
- Also in Spanish
- Pneumocystis jiroveci pneumonia (Medical Encyclopedia)
- Also in Spanish
- Progressive multilobar leukoencephalopathy (Medical Encyclopedia)
- Also in Spanish
- Tuberculosis Facts - TB and HIV/AIDS (Centers for Disease Control and Prevention) - PDF
**Blood**

**Summary**

Your blood is made up of liquid and solids. The liquid part, called plasma, makes up about half of your blood. The solid part of your blood contains red blood cells, white blood cells, and platelets.

Red blood cells (RBCs) deliver oxygen from your lungs to your tissues. White blood cells (WBCs) fight infection and are part of your immune system. Platelets are involved in the clotting (thrombosis) of cuts or wounds. The spongy material inside your body constantly makes more red blood cells, which means blood cells last for about 120 days. Some white blood cells live less than a day, but some can live up to 200 days.

There are four blood types: A, B, AB, or O. Also, blood is either type A, type B, or type O. Blood type A, B, or AB is called either positive or negative. Which is which depends on which type of blood transfusion. And your Rh factor can be important if you need a transfusion of blood from someone who is different from you.

There are two main types of blood diseases: blood disorders and blood cancers. Blood disorders include bleeding disorders, clotting disorders, and anemia. Blood cancers include leukemia, lymphoma, and multiple myeloma.

Blood tests such as blood count tests and red cell indices can help doctors check for and treat blood disorders and blood cancers. For example, the blood test for anemia can help check the level of your red blood cells and the amount of hemoglobin in your blood. Other blood tests can help check the function of your organs and show how well they work. For example, a blood test for liver function can check the activity of your liver. Other blood tests can help check the function of your kidneys and show how well they work. These tests can also check the level of certain substances in your blood, including electrolyte levels, blood glucose levels, and blood pressure.

**Gas**

Gas is the main cause of bloating. Gas in the digestive tract comes from two sources: air that you swallow and the breakdown of undigested food by bacteria in the large intestine. Certain foods may cause gas. Foods that produce gas in one person may not cause gas in another.

You can reduce the amount of gas you have by:

- Drinking lots of water and non-alcoholic drinks
- Eating slowly and avoiding fast food
- Avoiding milk products if you have lactose intolerance

Medicines can help reduce gas in the bowel passing gas caused by gas. If your symptoms still bother you, see your health care provider.
Asthma in Children

Also called: Childhood asthma

Summary

Asthma is a chronic disease that affects your airways. Your airways are tubes that carry air in and out of your lungs. If you have asthma, the inside walls of your airways become sore and swollen.

In the United States, about 20 million people have asthma. Nearly 9 million of them are children. Children have smaller airways than adults, which makes asthma especially serious for them. Children with asthma may experience wheezing, coughing, chest tightness, and trouble breathing, especially early in the morning or at night.

Many things can cause asthma, including:
- Allergens - mold, pollen, animals
- Irritants - cigarette smoke, air pollution
- Weather - cold air, changes in weather
Oxycode
pronounced as (ox koh' done)

Why is this medication prescribed?
How should this medicine be used?
Other uses for this medicine
What special precautions should I follow?
What special dietary instructions should I follow?
What should I do if I forget a dose?

IMPORTANT WARNING:

Oxycode may cause serious or life-threatening breath your dose is increased. Your doctor will monitor you care breathing or asthma. Your doctor will probably tell you such as chronic obstructive pulmonary disease (COPD, that increases the amount of pressure in your brain. The are weak or malnourished due to disease. If you experience medical treatment: slowed breathing, long pauses betw.

Taking certain other medications with oxycodone may in your doctor and pharmacist if you are taking or plan to be in Prevacid or erythromycin (Erytab, Erythromycin), certa (Nizoral), and voriconazole (Vfend), benzodiazepines such as diazepam (Diasol, Valium), estazolam, flurazepam, lora carbamazepine (Carbatrol, Epitol, Equetro, Tegretol), Tremedications for human immunodeficiency virus (HIV) inc phenytoin (Dilantin, Phenytek), rifabutin (Mycobutin), rif.
doc.

On This Page

- Background
- How Much Do We Know?
- What Have We Learned?
- What Do We Know About Safety?
- Keep in Mind
- For More Information
- Key References

This fact sheet provides basic information about tea tree oil—common names, usefulness and safety, and resources for more information.
NLM Drug information

NLM DRUG INFORMATION RESOURCES

Drug Information from the National Library of Medicine

- **Drug Information Portal**: The Portal provides users with comprehensive information on over 25,000 substances (over 200,000 unique searchable drug names and their synonyms) not only from NLM but also from other U.S. government agencies. It covers drugs from the time they are entered into clinical trials through their entry into the U.S. marketplace. The Drug Portal touches on all related information resources at NLM to provide for a comprehensive view. It is intended as a "midpoint" resource which includes information for the consumer, health professionals, and researchers.

- **Drugs, Herbs and Supplements**: Learn about your prescription drugs and over-the-counter medicines from MedlinePlus, the National Institutes of Health Web site for patients and their families and friends. Read about side effects, dosage, special precautions, and more. Browse dietary supplements and herbal remedies to learn about their effectiveness, usual dosage, and drug interactions.

- **Pillbox**: Developed to aid in the identification of unknown solid dosage pharmaceuticals. Pillbox combines high-resolution images of tablets and capsules with appearance information (imprint, shape, color, etc.). It enables users to identify solid dosage forms based on physical criteria: imprint (characters or number printed on a medication), shape, color, size, and scoring. Users are shown thumbnail images of possible matches. These images are continually updated as the user enters additional information. Pillbox is designed for use by emergency physicians, first responders, other health care providers, Poison Control Center staff, and concerned citizens.

- **DailyMed**: DailyMed provides information about marketed drugs, including FDA labels (package inserts). It provides health information providers and the public with a standard, comprehensive, up-to-date, look-up and download resource of medication content and labeling as found in medication package inserts.

- **Dietary Supplement Label Database (DSLD)**: The database links you to the information from the labels of over 20,000 dietary supplement products in the marketplace, including vitamins, minerals, herbs or other botanicals, amino acids, and other specialty supplements. It includes name, form, active and inactive ingredients, amount of active ingredient, manufacturer/distributor information, label claims, warnings, percentage of daily value, and additional label information. The database can be searched by product names, text terms found on product labels, specific dietary ingredients, and manufacturers.

- **RxNorm**: RxNorm provides normalized names for clinical drugs and links its names to many of the drug vocabularies commonly used in pharmacy management and drug interaction software, including those of First Databank, Micromedex, MediSpan, Gold Standard Akhtery, and Mutual. By providing links between these vocabularies, RxNorm can mediate messages between systems not using the same software and vocabulary. RxNorm files are available through the NLM RXNorm file service.

DRUG INFORMATION PORTAL

Information available for 79,734 drugs.

- Show examples.
- Show drug category names, results, and descriptions.
- Show top "By Name" searches (previous seven days).
- Show top "By Category" searches (previous seven days).
- Show top dispensed prescriptions in the US Market, 2010.
- Show common drug names list.
- Show generic name stems list.
- Show list of resources searched.
Videos and Tools

Watch health videos on topics such as anatomy, body systems and conditions affect them.

Health Videos
View videos of anatomy and body systems and conditions affect them.

Surgery Videos
Find videos of operations and surgical procedures.

Health Check Tools
Check your health with interactive calculators and questionnaires.

Games
Boost your health knowledge by playing interesting games.

Games and Quizzes

Test Your Knowledge

Anabolic Steroids
Cocaine
Hallucinogens
Inhalants
Marijuana
Methamphetamine
Nicotine
Opioids

Featured Poll
When you break up with someone, do you unfollow them?

When you break up with someone, do you unfollow them?
Yes: I can’t move on if I constantly see pictures of my ex.
No: I want to know what they’re up to.
Total votes: 1785
PubMed Tutorials

- Tutorials
- Quick Tours
- Webcasts and Videos
- Classes
- Handouts
NIH for Kids and Teens
NIH Science Education

Research & Training

Science Education

On this page
- Resources for Students
- Resources for Educators

Resources for Students

NIH Scientist Launch Game™App

NIAMS Kids Pages

Microscope Imaging Station
NIH Education Resources

For Teachers
- Women in Dental Research Video
- Open Wide and Take Inside Curriculum Supplement

For Patients and the Public
- Order Publications
- Diseases and Conditions
- Children’s Oral Health
- Older Adults
- Special Needs
- Spanish
Healthy Web Surfing

Guide to Healthy Web Surfing

What should you look for when evaluating the quality of health information on Web sites? Here are some suggestions based on our experience.

Consider the source -- Use recognized authorities

Know who is responsible for the content.

- Look for an "about us" page. Check to see who runs the site: is it a branch of the Federal Government, a non-profit institution, a professional organization, a health system, a commercial organization or an individual.
- There is a big difference between a site that says, "I developed this site after my heart attack" and one that says, "This page on heart attack was developed by health professionals at the American Heart Association."
- Web sites should have a way to contact the organization or webmaster. If the site provides no contact information, or if you can't easily find out who runs the site, use caution.

Focus on quality--All Web sites are not created equal

Does the site have an editorial board? Is the information reviewed before it is posted?

- This information is often on the "about us" page, or it may be under the organization's mission statement, or part of the annual report.
- See if the board members are experts in the subject of the site. For example, a site on osteoporosis whose medical advisory board is composed of attorneys and accountants is not medically authoritative.
- Look for a description of the process of selecting or approving information on the site. It is usually in the "about us" section and may be called "editorial policy" or "selection policy" or "review policy."
- Sometimes the site will have information "about our writers" or "about our authors" instead of an editorial policy. Review this section to find out who has written the information.

Be a cyberskeptic--Quackery abounds on the Web

Does the site make health claims that seem too good to be true? Does the information use deliberately unclear, "scientific" sounding language?
Evaluating Health Information

HEALTH TOPIC PAGE

Summary

Millions of consumers get health information from magazines, TV or the Internet. Some of the information is reliable and up to date; some is not. How can you tell the good from the bad?

First, consider the source: If you use the Web, look for an "about us" page. Check to see who runs the site. Is it a branch of the government, a university, a health organization, a hospital or a business? Focus on quality. Does the site have an editorial board? Is the information reviewed before it is posted? Be skeptical. Things that sound too good to be true are often. You want current, unbiased information based on research.

NIH National Library of Medicine

Related Health Topics

TUTORIAL

Evaluating Internet Health Information: A Tutorial from the National Library of Medicine

- This tutorial teaches you how to evaluate the health information that you find on the Web. It is about 16 minutes long.
- You need the Flash plug-in, version 8 or above, to view it. If you do not have Flash, you will be prompted to obtain a free download of the software before you start.
- The tutorial runs automatically, but you can also use the navigation bar at the bottom of the screen to go forward, backward, pause, or start over.

Related Health Topics
Environmental Health
Wide range of environmental and toxicology topics

Health effects

Information for:
- variety of professionals
- the public
- teachers and students

Tutorials and guides provided
Choose the right environmental health and toxicology resource

The National Library of Medicine's Environmental Health and Toxicology Portal provides a starting point for finding reliable information on toxicology, hazardous chemicals, environmental health, and toxic releases. This guide can help you select the right resource for your needs.

<table>
<thead>
<tr>
<th>If you're looking for:</th>
<th>Go to:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Journal references to toxicology literature including birth defects information</td>
<td>TOXLINE® or DART®</td>
</tr>
<tr>
<td>Summaries of peer-reviewed human health effects and emergency medical treatment for chemicals</td>
<td>HSDB®</td>
</tr>
<tr>
<td>Animal Toxicity Studies</td>
<td>HSDB</td>
</tr>
<tr>
<td>Environmental Fate, Exposure, Standards and Regulations</td>
<td>HSDB</td>
</tr>
<tr>
<td>Chemical/Physical properties and safety/handling/disposal of chemicals</td>
<td>HSDB</td>
</tr>
<tr>
<td>Manufacturing, formulation and use of chemicals</td>
<td>HSDB</td>
</tr>
<tr>
<td>Chemical names and synonyms</td>
<td>ChemiDplus® Lite or HSDB</td>
</tr>
<tr>
<td>Chemical structures and structure searching/drawing capability</td>
<td>ChemiDplus Advanced</td>
</tr>
<tr>
<td>InChI and/or SMILES structure notations</td>
<td>ChemiDplus Advanced</td>
</tr>
<tr>
<td>List of links to NLM/NIH and other government agency information for a single chemical</td>
<td>ChemiDplus Lite</td>
</tr>
<tr>
<td>Drug-induced liver injury: Evidence-based information on prescription and over-the-counter drugs, herbas, and dietary supplements.</td>
<td>LiverTox</td>
</tr>
<tr>
<td>Carcinogenicity, mutagenicity, tumor promotion and tumor inhibition data from the National Cancer Institute (NCI). CCRIS provides historical information from the years 1985 - 2011. It is no longer updated.</td>
<td>CCRIS</td>
</tr>
<tr>
<td>Peer-reviewed mutagenicity test data from the U.S. Environmental Protection Agency (EPA) including species, type of assay, test result and more. GENETOX covers the years 1991 - 1998. It is no longer updated.</td>
<td>GENETOX</td>
</tr>
</tbody>
</table>
Selected Topics
- Arsenic
- Arts & Crafts Materials
- Climate Change
- Dietary Supplements
- Drinking Water and Water Pollution
- Environmental Justice
- Indoor Air
- Laboratory Safety
- Lead
- Mercury
- Nanotechnology
- Opiate Addiction and Treatment
- Outdoor Air
- Pesticide Exposure
- Tobacco and Smoking
- West Nile Virus Pesticide Control

Guides, Tutorials, Workbooks
- TOXNET Workbook (PDF, 8.8MB)
- TOXNET Class Schedule
- TOXNET Tutorials & Recordings, National Network of Libraries of Medicine (NNLM)
- TOXNET Guide on the Side, National Network of Libraries of Medicine (NNLM)
- Quick Tours
  - Basics of Searching the Hazardous Substances Data Bank
  - Searching the LactMed Database
  - ToxTutor: Learn essential principles of toxicology
  - Training

Help
- A to Z Index of Environmental Health and Toxicology Resources
- About the NLM Toxicology & Environmental Health Information Program (TEHIP)
- Choose the Right Environmental Health and Toxicology Resource
- Contact us
- Email Updates
- Environmental Health, Toxicology and Chemical Database Descriptions
- Find Free Full Text Health Sciences Information
- HSDB Chemicals Sorted by Chemical Abstracts Registry Number (CASRN)
- HSDB Chemicals Sorted by Substance Name
- IUPAC Glossary of Terms Used in Toxicology
- Promotional Materials
- Selection Guidelines for Non-National Library of Medicine Resources
- Staff Publications
- TOXNET FAQs
Environmental Health Student Portal
Connecting Middle School Students to Environmental Health Information

What is Environmental Health?
Environmental Health is the interrelationship between human health and the environment, either natural or manmade.

Learn More

Air Pollution
Chemicals
Climate Change
Water Pollution
Videos
Games
Experiments
For Teachers

Interested in a trailer of our animations about characteristics, uses, and health effects of hazardous chemicals? Please, click here to preview.
ToxMystery
Help Toxie the Cat find hazards in the house. Lesson plans available!
Getting started:

You can click on the rooms in any order.

Roll your mouse over things in the house, and if it moves, click on it.

When the question box pops up, click on the answer.

If you need a hint, press on Toxie.

The scorekeeper will let you know if you have found all of the

Here's a bedroom!
There are three hazards in this room.
You have found 2.

Good Luck!
Welcome to TOX TOWN

Tox Town provides consumer-level information on everyday locations and situations where you might be exposed to toxic chemicals. This site will help you better understand risks of exposure, potential health effects, and how to protect yourself.

Sources of Exposure
Explore places and situations where you might be exposed to hazardous chemicals and contaminants. Learn how you can minimize your risk.
Topics Covered in this Course

ToxTutor is divided into the following sections:

1. Introduction to Toxicology
2. Dose and Dose Response
3. Toxic Effects
4. Interactions
5. Toxicity Testing Methods
6. Risk Assessment
7. Exposure Standards and Guidelines
8. Basic Physiology
9. Introduction to Toxicokinetics
10. Absorption
11. Distribution
12. Biotransformation
13. Excretion
14. Cellular Toxicology
15. Intuitive Toxicology and Risk Communication
16. Environmental Toxicology, Environmental Health, and One Health
17. Conclusion
National Institute of Environmental Health Sciences

- Curricula for teachers
- Information for students
- Speaker bureau
- Summer Internship Program
- Fun activities for younger kids

NIEHS Health & Education resources
NLM iOS Apps
Games on iPad & iPhone: Base Chase, Run4Green, TOXinvaders, Bohr Thru
Genomics/Genetics
Genomic Health/Science Literacy

- Lack biology basics
- Lack mathematical concepts
- Low health literacy

- Biomedical professions
- Medical treatment
- Understand basics of health conditions
National Human Genome Research Institute

Education

Educational materials about genetics and genomics

Smithsonian NHGRI Genome Exhibition
A genomics exhibition from the Smithsonian and NHGRI

Genomic Careers
Information on careers in genomics and genetics

Online Genetic Education Resources
A list of online resources for learning about genomics and genetics

About The Human Genome Project
Information on the history, progress, and impact of the HGMP

National DNA Day
A unique day when everyone can learn more about genetics and genomics

Fact Sheets
Clearly written information on the institute, genetic research and genetic concepts

Talking Glossary of Genetic Terms
Terms and definitions used in genetic research with multimedia

Genetic Education Resources for Teachers
Teaching plans to present the science of genetics and genomics

Online Education Kit
A web-based resource outlining the major history and developments of genomics

Highlights

Annual National DNA Day lecture to honor Congresswoman Louise M. Slaughter

For NHGRI's National DNA Day on April 25, Olivier Notte, Ph.D., founder and CEO of DNAeStrix, will present "Bench to Bedside to Business: A Talk on Startups in Science" for the newly named Louise M. Slaughter National DNA Day Lecture, which honors the late Congresswoman. The event and the public are invited to attend at the Lubas Hill Center Auditorium on the NIH campus.

Celebrate 15 ways genomics is influencing our lives

On April 5th, NHGRI will launch the "15 for 15" Celebration to honor the 15th anniversary of the Human Genome Project's completion. Beginning April 5th, and each business day leading up to National DNA Day on April 29th, NHGRI will reveal one of 15 topics that illustrate the

See Also

Education and Community Involvement Branch
GenomeTV
Gene2 Advance of the Month
Education Archive

On Other Sites:
Genome: Unlocking Life's Code
NHGRI Smithsonian Exhibition
GenomeTV
NHGRI YouTube Channel

National Human Genome Research Institute education page
- Traveling exhibit
- Monthly newsletter for teachers
- Teacher features
- Interactive learning
- Timeline
- Infographics
NLM Traveling Exhibits

NLM’s Harry Potter’s World

In 1997, British author J. K. Rowling introduced the world to Harry Potter and a literary phenomenon was born. Although a fantasy story, the Harry Potter book series features magic that is based partially on Renaissance...

Genetic Traits in Harry Potter

Grade level: 5-8 | Subject: science and technology

Time needed
two to four 40-minute class periods

Four 40-minute class periods for younger students with little knowledge of genetics (two periods for Pre-lesson Activity and Class 1, and the other two periods for Class 2)

Two 40-minute class periods for older students with strong knowledge of genetics (one period for Pre-lesson Activity and Class 1 and the second period for Class 2)

Description
The purpose of this lesson is to give students an introductory understanding of genetic inheritance. Students review and become familiar with basic genetic concepts and terms, such as DNA, chromosomes, gene, allele, homozygous, heterozygous, recessive and dominant genes, genotype, phenotype, complex traits, Mendelian inheritance, and Punnett square. Students apply these to identify and examine several examples of simple and complex genetic traits in several characters in Harry Potter. Students also examine inheritance patterns of magical ability in Harry Potter, and use the concepts they have learned to identify possible genotypes of the magical abilities demonstrated by several characters in the series.

Note: The models of genetic inheritance presented in this lesson plan have been simplified so that students learn basic terms and concepts about genes and genetically inherited physical characteristics among people. In reality, many of the traits used as examples—and most traits, in general—are far more complicated story about inheritance than discussed in this lesson plan. For furthering students’ learning and exploration of the complex genetic studies, please see Extension Activity 2 below.

Open All
- Learning outcomes
- Background information
- Vocabulary
- Materials
- Pre-lesson activity
- Class 1 procedures
- Class 2 procedures
NCBI Bookshelf

Genes and Diseases

- Organized by the parts of the body that genetic disorders affect
- Over 80 genetic disorder summaries
- Images and interesting facts
- PDF downloads of chapters
- Links to related research literature and pertinent websites

Genes and Diseases from NCBI Bookshelf
Literacy/Education Resources
Interdisciplinary Resources
make history!
expand your horizons

The Exhibition Program creates lively and informative exhibitions and educational resources that enhance awareness of and appreciation for the collections of the National Library of Medicine. Explore. Discover. Enjoy.
Focus on Health Issues

Temperance and women’s rights advocates called attention to family violence and agitated for reform during the mid-19th century. Despite their efforts, society as a whole continued to ignore domestic violence.

CONTINUE to GENERATIONS OF REFORMERS

LEARN more

Who were some advocates for change?

SEE the digital gallery

BOOK the traveling exhibition
Alongside the traditional demands of family life and political and military leadership, George Washington focused considerable attention on the health and safety of his family, staff, slaves, and troops.
Careers
Careers in Environmental Health, Chemistry, and Toxicology

- Careers (Society of Toxicology)
- Careers and Internships: Opportunities for Students (Environmental Protection Agency)
- Enviro-Health Links: Education, Careers, and Outreach (National Library of Medicine)
- Getting Your Own Lab Coat. Careers for You in Science and Research (National Institute of Environmental Health Sciences)
- Outbreak at Watersedge: A Public Health Discovery Game (University of Minnesota) [en español]
- What is Public Health (Association of Schools and Programs of Public Health)
NLM Traveling Exhibits

Exhibition: Part of a Team

High School
American Indian Science and Engineering Students (AISES)
AISES offers a variety of programs for Native American, Asian and international science and engineering students.

ASPIRINGDOCS.ORG® by the Association of American Medical Colleges (AAMC)
http://www.aspiringdocs.org
ASPIRINGDOCS.ORG® is supported by the Association of American Medical Colleges (AAMC). The Medicine section will help high school students understand the different aspects of a medical career and assist them with navigating the process of medical school application.

Association of American Indian Medical Students (AAIMS)
http://www.aaimsm.org
This national organization represents American Indian medical students, residents, and practicing physicians.

A PA student (right) from George Washington University observes a doctor performing an eye exam during a rotation, Washington, D.C., ca. 1970s
Courtesy National Library of Medicine

PA students are educated and trained to collaborate with other health professionals. During their coursework and clinical training, PAs learn from and work with physicians, other PAs, nurses, and additional health care professionals in a variety of settings.

American physician Eugene Stead created the profession’s partner-based foundation. He modeled it after the collaborative relationship between Dr. Amen Johnson and his assistant, Buddy Treadwell, who had worked together in rural North Carolina since the 1940s. Dr. Stead opened the first academic PA program at Duke University in 1965, which educated students to
NNLM PNR

- Direct students and families to freely accessible health science resources
- Incorporate NLM/NIH educational resources to supplement curricula and reinforce learning
- Collaborate with other departments and the broader community
- Look to NNLM PNR for great resources, classes, webinars, funding and other opportunities
Thank You!

Carolyn Martin, MLS, AHIP
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Pacific Northwest Region (NNLM PNR)
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